

Semantische Wikis

Übersicht

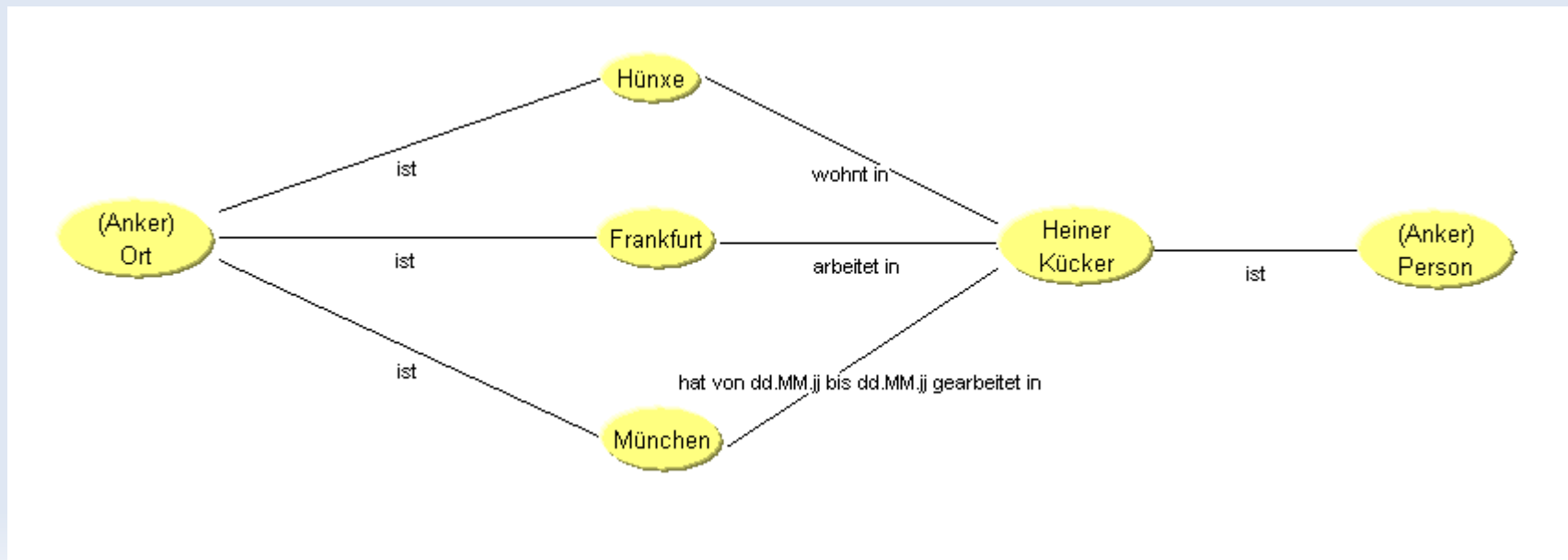
- Grundlagen
- RDF & Co.
- Semantische Wikis
- Zusammenfassung

Grundlagen

- Semantik?
- Semantische Netze
- Semantisches Internet

Grundlagen: Semantische Netze

- Begriffe & Relationen
- Vererbung: "Säugetier - Mensch"
- Synonyme: "Handy - Mobiltelefon"
- Antonyme: "Tod - Leben"
- ...



Grundlagen: Semantisches Internet

"The Semantic Web is not a separate Web but an extension of the current one, in which information is given well-defined meaning, better enabling computers and people to work in cooperation."

--Tim Berners-Lee

- “Finden statt suchen!”
- Maschinenlesbare Definition der Daten
- Links mit Bedeutung verstehen
- Erfassung mit RDF & Co.

RDF & Co.

- Wie in der Schule: “Subjekt, Prädikat, Objekt”
- Immer ein Tripel
- Als Graph
- Als RDF/XML

RDF: Beispiel



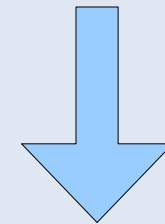
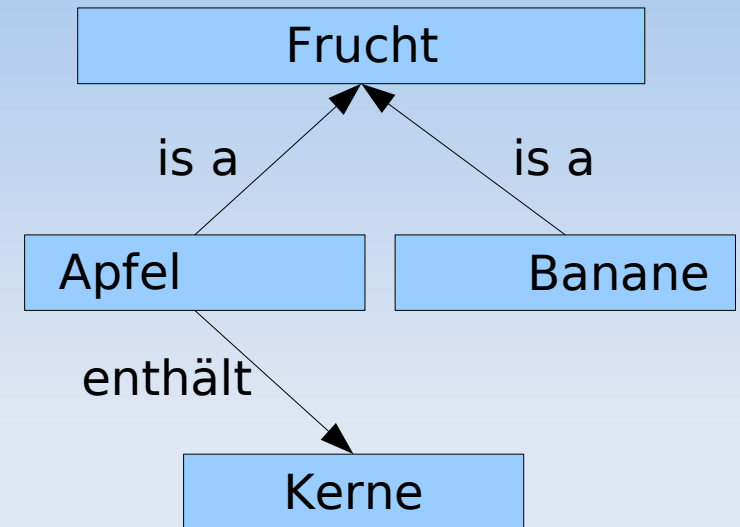
1. `<?xml version="1.0"?>`
2. `<rdf:RDF xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#" xmlns:exterms="http://www.example.org/terms/">`
3.
4. `<rdf:Description rdf:about="http://www.example.org/index.html">`
5. `<exterms:creation-date>August 16, 1999</exterms:creation-date>`
6. `</rdf:Description>`
7. `</rdf:RDF>`

Semantische Wikis

- Problem: *“Die Informationen sind da, aber für einen Rechner nicht benutzbar.”*
 - Lösung: Tripel in die Texte
 - Vorteile
 - Nachteile
- Träumerei:
 - *Alle männlichen, australischen Tennisspieler jünger als 24*
 - *Durchschnittsalter aller Personen auf Wikipedia der letzten 1000 Jahre*
 - *Alle Bilder von New York, nach Datum sortiert*

Semantic Media Wiki

- Seit 08.2005
- Version 0.4
- Semantik für Mediawiki!
- Unterstützung von RDF



-Generierter Inhalt
-Verbesserte Suchen

Semantic Media Wiki: Arbeitsweise

- Bearbeiten:
 - Direkt im Text
 - Verweis auf Prädikate (mit Wertangabe)
 - Form: `[[]]`
 - z.B.: `[[is a::city]]`
- Abfrage:
 - Eingabe eines Tripels oder Teilen davon

Semantic Media Wiki: Beispiel

"San Diego" is a `[[is a::city]]` located in the southwestern corner of `[[is located in::California]]`, the extreme southwestern corner of the contiguous 48 states of the `[[is located in::United States]]`.

San Diego is a [city](#) located in the southwestern corner of [California](#), the extreme southwestern corner of the contiguous 48 states of the [United States](#). It is the county seat of [San Diego County](#). As of the [2000](#) census, the city had a total population of 1,223,400; as of [2005](#), the California Department of Finance estimated the city to have 1,305,737 residents. The city is the second-largest in California and the seventh-largest in the United States and is noted for its temperate climate, many beaches, and sunny weather. The city is named after [San Diego de Alcala](#). San Diego smells like a [rose](#) San Diego is a name of [saint](#)

Semantic Media Wiki: Beispiel

- Artikel über Kalifornien
- Neben Text hat jeder Artikel eine Übersicht über Attribute und Relationen:

Relations to other articles — Click + 🔍 to find similar articles.

California **Is a** **U.S. state** + 🔍

California **Located in** **United States** + 🔍

California **Has capital** **Sacramento** + 🔍

California **Borders** **Pacific Ocean** + 🔍, **Oregon** + 🔍, **Nevada** + 🔍, **Arizona** + 🔍, and **Mexico** + 🔍

Attributes of California — Click + 🔍 to find similar articles.

Also known as: **The Golden State** + 🔍


Area: 411,000 km² (41,100,000 ha, 158,687.987 miles²) + 🔍

Width: 402,500 m (402.5 km, 250.102 miles) + 🔍

Length: 1,240,000 m (1,240 km, 770.5 miles) + 🔍

Population: 35,893,799 + 🔍

[Editing help on relations and attributes](#)

[View as RDF](#) 

Semantic Media Wiki: Beispiel

Semantische Suche:

Simple semantic search

Fill in either the upper or lower row of the input form to search for relations or attributes, respectively. Some of the fields can be left empty to obtain more results. However, if an attribute value is given, the attribute name must be specified as well. As usual, attribute values can be entered with a unit of measurement.

Be aware that you must press the right button to obtain results. Just pressing *Return* might not trigger the search you wanted.

Subject article:	Relation name:	Object article:	
<input type="text"/>	<input type="text" value="Located in"/>	<input type="text" value="United States"/>	<input type="button" value="Search Relations"/>
	Attribute name:	Attribute value:	
	<input type="text"/>	<input type="text"/>	<input type="button" value="Search Attributes"/>

Search results (relations)

San Francisco	Is located in	United States
California	Located in	United States
New York	Located in	United States
Sacramento	Is located in	United States
San Diego	Is located in	United States
User:Skierpage	Is located in	United States

Zusammenfassung

- Komplexe Theorie
- Idee: Sehr vielversprechend
- Lösung: Evtl. problematisch
- Semantic Media Wiki: Noch lange nicht am Ende
- Wenn es klappt: *“Finden statt suchen!”*

Danke für die Aufmerksamkeit!

Fragen bitte!

Kritik!